



Billing Code: 4165-15

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Services Administration

Methodology for Designation of Frontier and Remote Areas

AGENCY: Health Resources and Services Administration, HHS.

ACTION: Request for Public Comment on Methodology for Designation of Frontier and Remote Areas

SUMMARY: This notice announces a request for public comment on a methodology derived from the Frontier and Remote (FAR) system for designating U.S. frontier areas. This methodology was developed in a collaborative project between the Office of Rural Health Policy (ORHP) in the Health Resources and Services Administration (HRSA); and the Economic Research Service (ERS) in the U.S. Department of Agriculture (USDA). While other agencies of the Department of Health and Human Services (HHS) and the ERS may in the future choose to use the FAR methodology to demarcate the frontier areas of the U.S., there is no requirement that they do so, and they may choose other, alternate methodologies and definitions that best suit their program requirements.

DATES: The public is encouraged to submit written comments on the proposed FAR methodology no later than [*insert date 60 days after publication*]. All public comments received

will be available for public inspection at HRSA's ORHP on weekdays between 8:30 a.m. and 5:00 p.m.

ADDRESSES: Comments may be submitted via e-mail to shirsch@hrsa.gov; mail to Office of Rural Health Policy, Health Resources and Services Administration, 5600 Fishers Lane, Parklawn Building, 5A-05, Rockville, MD 20857; or fax to (301) 443-2803.

FOR FURTHER INFORMATION CONTACT: Questions about this request for public comment can be directed to Steven Hirsch using the contact information listed above.

SUPPLEMENTARY INFORMATION:

Background:

ORHP was authorized by Congress in December of 1987 by Section 711 of the Social Security Act [42 U.S.C. 912], and charged with informing and advising HHS on matters affecting rural hospitals and health care and coordinating activities within the Department that relate to rural health care.

Definition of "rural." ORHP considers all nonmetropolitan (nonmetro) counties to be "rural" for the purposes of eligibility for its grant programs. Over the years, ORHP has funded development of a rational, data-driven method to designate rural areas inside of metropolitan counties. The Rural-Urban Commuting Area (RUCA) codes are used for determining grant eligibility. The

RUCAs, which were developed by Richard Morrill and Gary Hart of the University of Washington and John Cromartie of the USDA's ERS, are based on a sub-county unit, the census tract, permitting a delineation of what constitutes rural areas inside metropolitan areas (see: <http://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes.aspx>). Using data from the Census Bureau, every census tract in the United States is assigned a RUCA code. Codes range from 1 through 10, with 23 sub codes, with code 1 representing the most densely populated urban areas and code 10 representing rural areas with primary commuting to a tract outside an Urbanized Area or Cluster. HRSA believes that the use of RUCAs allows more accurate targeting of resources intended for the rural population. Both ORHP and the Centers for Medicare & Medicaid Services have been using RUCAs for several years to determine programmatic eligibility for rural areas inside of metropolitan counties.

ORHP currently considers all census tracts with RUCA codes 4 through 10 to be rural. While use of the RUCA codes has allowed identification of rural census tracts in metropolitan counties, among the more than 60,000 tracts in the U.S., there are some that are extremely large and where use of RUCA codes alone fails to account for distance to services and sparse population. In response to these concerns, ORHP has designated 132 large area census tracts with RUCA codes 2 or 3 as rural. These tracts are at least 400 square miles in area with a population density of no more than 35 people per square mile. There is also a ZIP code-based version of the RUCA codes that is often used for policy analysis, research, and other purposes (see: <http://depts.washington.edu/uwruca/>).

Need for definition of “frontier and remote.” Rural experts, researchers, and others have been calling for an improved way to identify frontier and remote areas. The most commonly used standard to date has been to identify frontier areas as those counties with six or fewer people per square mile. Researchers and policy experts have noted the shortcomings of this approach since it relies solely on population density and uses counties as the unit of measure despite the great disparity in county size across the country (Ciarlo, 1996). This definition lacks precision. Demand has been growing for a statistically based, nationally consistent definition of “frontier territory;” one that is adjustable within a reasonable range, and applicable in different research and policy contexts. The U.S. Congress passed legislation directing the Secretary of HHS to issue regulations that would define the concept of “Frontier Area” to be used in the Telehealth programs (Section 330I(r) of the Public Health Service Act, 42 U.S.C. 254c-14(r)). The definition proposed below differs in several respects from the statutory provision governing the Telehealth programs, and thus it will not be applicable to them. As used in this notice, the term “frontier” denotes territory characterized by some combination of relatively low population density and high geographic remoteness.

In performing analysis for this project, HRSA intended to create a definition of “frontier” based on easily explained concepts of remoteness and population sparseness. HRSA’s goal was to create a statistical delineation that will be useful in a wide variety of research and policy contexts and adjustable to the circumstances in which it is applied. We believe that the new geographic taxonomy should prove useful in various research and policy environments, such as rural health care, regional science, demography, rural sociology, and agricultural economics. Two features distinguish the methodology described here from earlier classifications. First, the approach

strives for the most accurate measures of distance possible for the smallest units of geography containing population data. Travel time by car to nearby urban areas is calculated for coterminous U.S. territory at the 1x1 kilometer grid level (11.9 million grid cells). Once frontier territory is delimited at the grid level, frontier populations may be aggregated to ZIP code areas, as demonstrated here, or to census tracts, counties, or other useful geographic units. Second, travel time thresholds around urban areas were allowed to vary by urban-area population size. This is desirable because the effect of urban population size on adjacent rural population density is not uniform across all urban sizes. In general, the higher the population of an urbanized area, the greater the population density of any given area nearby.

However, any statistical delineation of this nature is approximate at best, and not suited to all applications. Given the remarkable diversity of settlement patterns and conditions across the contemporary U.S., no definition can account for every variation; and there will be areas included or excluded that would seem to many to be erroneously classified. Therefore, it is necessary to build some degree of flexibility into any definition that will allow users to choose the sub-definition that best suits their purpose. The FAR codes described here allow a range of choices rather than a dichotomy. It will be up to researchers, policymakers, program managers, and policy advocates to ensure that the codes are applied appropriately within specific contexts.

Why is it important to delineate frontier areas?

This project seeks to delineate U.S. territory characterized by very low population density and a high degree of remoteness. Such territory lies at one end of the rural-urban continuum and can

be generally viewed as a subset of rural. Job creation, population retention, provision of services such as health care, and access to food, clothing, and other consumer items may require increased efforts in very rural, remote communities. Recent research indicates that the demographic and economic penalties associated with small size and remoteness may be increasing (Partridge, 2008).

Perhaps the fundamental and defining challenges facing frontier communities are the increased per capita costs of providing services. Access to health care is a primary concern motivating this research, but distance and low population densities increase costs of providing all types of social and public services, including schools, police and fire protection, public utilities, and transportation.

Placing Frontier Definitions in a Broader Rural Context

For purposes of this project, “frontier/remote” is generally considered a subset of “rural.” Of course, there are many definitions of “rural” and as much disagreement about them as there is about frontier. Many of the rural taxonomies have multiple categories, some of which can be used and evaluated for their utility in designating frontier/remote areas. Only by defining "rural" appropriately can policymakers better understand the implications of certain policy options. The definition of rurality used for one purpose may be inappropriate or inadequate for another (Larson and Hart, 2003).

Most of the rural definitions are based on counties (or their equivalents) as the geographic unit. The most important reasons for using counties include that they: 1) have much available data; 2) are significant political entities; 3) seldom change boundaries; 4) are traditionally used in many reporting systems and data sets; and 5) are well known to the general public, program managers, researchers, and politicians. However, there are significant problems with county use for many purposes. Counties were created by means of political processes and often are extremely heterogeneous units where aggregate averages of data items end up being unrepresentative of particular places within the county. The rural/urban character within many counties varies dramatically. For instance, Pima County, Arizona, ranges from an urban city of over half a million population near its northeast corner to large remote areas that are extremely sparsely populated along its southwest Mexico/U.S. border. Some large states like Arizona (114,006 square miles – significantly larger than the United Kingdom) have few counties (17 counties), while smaller states like Virginia (42,769 square miles) have many smaller counties (134 counties). Counties vary in size from state to state, with the counties in the west generally much larger than those of the east.

Some definitions go beyond a simple division of counties into rural/urban or metro/nonmetro categories. For instance, the ERS' county-based Urban Influence Codes (UICs) consist of a dozen codes and uses the Office of Management and Budget's definition of metropolitan to divide the nation's urban-like and rural-like counties into two groups. The taxonomy divides the nonmetro counties into 10 categories. The most frontier-like of these categories (i.e., category number 12) could be considered as possible frontier/remote areas, but because it uses a county

level analysis, the use of UIC still mischaracterizes some areas within counties that have a high degree of heterogeneity in terms of their degree of being frontier/rural.

“The choice of definition for 'rural' that is used to present demographic and health data can make a substantive difference. For example, whether a disproportionate number of rural residents are elderly depends on how rural is defined. Furthermore, wide variations in health status indicators within non-metro areas will not be apparent unless non-metro data are disaggregated by region, urbanization, proximity to urban areas, or other relevant factors,” (Hewitt, 1989).

Depending on which categorization is chosen, estimates of the rural population of the U.S. can vary widely. Such differences make reported information vastly different depending on which definition is employed. Although having “rural” definitions that differ in geographic units and criteria is not inherently bad because they may be used for different purposes, this example does demonstrate that they can lead to considerably different populations being designated.

There are some taxonomies that are based on sub-county units. The oldest and most used such geographic taxonomy is that of the U.S. Census Bureau. This utilizes census tract and block group data to define Urbanized Areas and Urban Clusters (described below). The other taxonomy that has gained significant use, especially related to health care, is the RUCAs, which were described above.

There are many different types of “rural” and “frontier” definitions. Many of these definitions were developed in response to specific needs, but this is not always considered when they are

applied to other tasks and different purposes. Deciding which “rural” definition to apply to a research or policy analysis topic depends on the purpose at hand, the availability of data, and the appropriate and available taxonomy. All currently available definitions of “rural” have their limitations, however the approach described in this notice is intended to provide an empiric approach to the definition of “frontier” and “remote.” Although it is unlikely that all researchers, analysts, and advocates will ever agree that a single definition of “rural” is appropriate in all circumstances, we believe that the approach below may provide interested parties with an additional instrument to gauge the relative rurality of an area.

General Review of the Frontier Concept

The “frontier” definition discussed here is a geographical concept meant to delineate areas characterized primarily by remoteness. Applying this particular meaning to the term has increased in recent years, especially in the rural health policy arena, and represents a natural evolution of the term with parallels in other disciplines (as described below). Though a more neutral label, such as “remote areas” could easily be substituted, there are benefits to use of the term “frontier” for several reasons, one being the use of a shorter, more intuitively appealing descriptive label in research publications and other outlets.

For geographers and others, the term “frontier” came to mean not just the line dividing more densely settled and less densely settled territory, but all of the less densely settled territory beyond the line. For example, after the 1980 Census, Frank Popper published a series of academic and news articles in which he applied the term frontier to all sparsely settled territory,

as many others were doing, and his research showed that more than half the land area of the U.S. was still frontier. He also claimed that the number of frontier communities was growing because of persistent population loss throughout the nation's heartland (Popper, F.J., 1986). Social scientists and others are increasingly using the term "frontier" to describe sparsely settled and geographically remote territory, especially in the U.S. (Duncan, 1993; McGranahan and Beale, 2002). On the federal and state health care front, frontier came to have a general meaning similar to that advocated by Popper (i.e., sparsely settled) with remoteness often emphasized. "In the mid-1980s, the federal Community Health Center program decided to consider as frontier those counties with a population less than or equal to six persons per square mile located at considerable distance (greater than 60 minutes travel time) to a medical facility able to perform a caesarian section delivery or handle a patient having a cardiac arrest. These latter criteria were forgotten through the years, and programs began to define frontier counties with only a single criteria – population density of six persons per square mile or less," (Definition of Frontier section of following web page accessed 4/21/2011: <http://frontierus.org/defining.php>). For a bibliography, demographics, federal programs, and other materials related to frontier, see the National Center for Frontier Communities website (<http://frontierus.org/>).

It is clear from an overview of the literature that a fairly small group of factors have a tendency to be included in most of the rural and frontier taxonomies. The Census Bureau used population density (areas of less than two people per square mile) exclusively in its 19th century definition. In contemporary applications, geographic remoteness has been equally emphasized. For instance, McGranahan and Beale (2002) identified a set of frontier counties based on two measures applied to nonmetro counties: population density (less than 10.1 persons per square

mile) and non-adjacency to a metro area as a proxy for remoteness. Many other measures attempt to capture these overlapping but distinct concepts of sparseness and remoteness: population size, distance to urban areas (measured in linear miles, travel miles, or travel time), and degree of urbanization.

Many of the listed factors have a face validity that is quite obvious. For instance, society's perception of rural areas is that they are those places where the population settlement pattern demonstrates low density (i.e., sparsely settled areas).

Geographic Taxonomy Development Concerns

The ORHP/ERS-funded frontier taxonomy project to develop a needed national definition of “frontier” and “remote” was started in 2008, and included the following components:

- 1) creation of a comprehensive review and inventory of rural and frontier definitions;
- 2) establishment and use of a Technical Advisory Group (five academic experts),
conference calls, and other communication and feedback;
- 3) formation and use of a Stakeholder Advisory Group (seven relevant stakeholders),
conference calls, and other communications and feedback;
- 4) planning and implementing five regional stakeholder meetings in Washington
(District of Columbia), Albuquerque (New Mexico), Omaha (Nebraska), and two in
Seattle (Washington) – one of which was more specifically about islands. Meetings

were limited to approximately 30 stakeholders. In addition, many other presentations with time for feedback were made (e.g., presentations to the Frontier Partners Group);

- 5) analytical testing of the alternate approaches and results;
- 6) solicitation of feedback regarding approaches and results;
- 7) selection of final methodological approach; and
- 8) analyses using final methodology on 2000 data.

All the components have been completed.

FRONTIER AND REMOTE (FAR) METHODOLOGY:

To assist in providing policy-relevant information about conditions in remote areas to policymakers, public officials, researchers, and the general public, ORHP has helped fund the development of a set of ZIP code-level frontier codes by ERS.

The term “frontier” is used here to describe territory characterized by some combination of low population size and high geographic remoteness. This pilot FAR version, based on 2000 Census data, provides four separate frontier definitions (Levels), ranging from one that is relatively inclusive (18.0 million people classified as living in frontier areas) to a relatively restrictive version (4.8 million frontier residents). Different definitions are necessary because rural areas experience degrees of remoteness at differing population levels that affect access to different types of goods and services. A relatively large share of the population live far from cities providing “high-order” goods and services, such as advanced medical procedures, major

household appliances, regional airport hubs, or professional sports franchises. A much smaller, but still significant, share of U.S. residents finds it hard to access “low-order” goods and services, such as grocery stores, gas stations, and basic health care needs. Other types of goods and services – clothing stores, car dealerships, movie theaters – fall somewhere in between. Calculation of travel times from urban areas was performed for 1x1 kilometer grid cells that also included an estimated 2000 Census population. The use of these small, 1 square kilometer cells, allows more accuracy of measurement than use of larger units, such as census tracts or county boundaries. Once the frontier status for all grid cells was determined, the grid-cell population was aggregated to ZIP code areas. For each of the four frontier Levels, the percentage of a ZIP code area’s population classified as frontier was determined. If the majority of the ZIP code areas’ population was classified as frontier, that ZIP code area was considered to be a frontier area.

Use of the FAR Methodology and associated data can be used to generate alternative “frontier” definitions that might better fit potential user purposes. The FAR codes can also be used in conjunction with other data, such as socioeconomic characteristics of populations, to allow further research analysis or better policy use.

A synopsis of the methods for the new FAR definition is as follows:

- 1) the developmental analyses were based on the 2000 Bureau of the Census data;
- 2) the conterminous U.S. was divided into 11.9 million 1x1 kilometer squares for analysis;
- 3) settlement population aggregations were based on the Census Bureau’s designated Urbanized Areas and Urban Clusters based on the 2000 Census data;

- 4) travel times were calculated to the nearest edges of Urbanized Areas of 2500 or greater population (travel times were estimated using speed limits and the fastest routes were determined and employed in the analyses);
- 5) travel times were calculated to the nearest Urbanized Areas regarding each of the following categories: 50,000 or greater population, 25,000-49,999 population, 10,000-24,999 population, and 2,500-9,999 population;
- 6) for each of the 11.9 million grid cells, the information in #4 and #5 above were used to determine frontier status for each of the four levels (described below);
- 7) the grid-cell populations (now classified as frontier or non-frontier) were then aggregated to ZIP code areas (ZIP code areas used here come from an ESRI map boundary file reflecting the U.S. Postal Service December 2010 inventory); and
- 8) ZIP code areas were assigned as being FAR or not based on whether 50 percent or more of the populations in their cells were designated as FAR (this was performed for each of the four Level criteria – described below).

Not only can the cell data be aggregated and calculated for ZIP code areas, but also the same is being done for census tracts and could be done for other types of geographic units. Note that aggregating the information to larger geographic units (such as counties and states) creates many more units that combine both frontier and non-frontier populations.

The four FAR Levels are defined as follows (travel times are calculated one-way by the fastest paved road route):

- 1) Frontier **Level 1** areas are 60 minutes or greater from Census Bureau-defined Urban Areas of 50,000 or more population;
- 2) Frontier **Level 2** areas are 60 minutes or greater from Urban Areas of 50,000 or more people and 45 minutes or greater from Urban Areas of 25,000-49,999;
- 3) Frontier **Level 3** areas are 60 minutes or greater from Urban Areas of 50,000 or more people; 45 minutes or greater from Urban Areas of 25,000-49,999; and 30 minutes or greater from Urban Areas of 10,000-24,999; and
- 4) Frontier **Level 4** areas are 60 minutes or greater from Urban Areas of 50,000 or more people; 45 minutes or greater from Urban Areas of 25,000-49,999; 30 minutes or greater from Urban Areas of 10,000-24,999; and 15 minutes or greater from Urban Areas of 2,500-9,999.

FAR Level 1 includes a larger proportion of the population and land area of the U.S than Level 2, which includes more area and population than Level 3, etc. Thus, a ZIP code area that is designated as FAR per the Level 2 definition would need to be located an hour or more travel time from the nearest edge of the closest Urbanized Area (50,000 or more population), and also be located 45 minutes travel time from the nearest edge of an Urban Area of 25,000-49,999 population. For instance, if a ZIP code area was 70 minutes from an Urban Area of 105,000 population and 55 minutes from an Urban Area of 37,000, it would qualify as FAR, but if it was 70 minutes from an Urbanized Area of the same population and 29 minutes from an Urban Area of the same size it would not be designated as FAR. Because the base cell information used for the conterminous states was not available for Alaska and Hawaii, the designation process has to be modified and performed in a more tailored and analyst-intensive fashion. A trial of this

method indicates that the final designations for these two states will be for all intents and purposes parallel with those of the other 48 states. The final version of the designations for Alaska and Hawaii will be performed when the 48 states are redone with the Census designation of Urban Areas with 2010 data.

Not all cells and populations are connected to larger places by roads. In many cases, other means of transportation must be utilized (e.g., airplanes, trains, ferries, ships, and boats). This is not only true for the many islands of Hawaii and Alaska, but for many of the other states (e.g., Washington's San Juan Islands in the Puget Sound and Massachusetts' Nantucket Island). There are also towns such as Alaska's Bethel that are not connected to larger towns/cities by roads (i.e., in this case only by air). In these cases (e.g., where air flights are necessary), one hour is added to the road travel time for the area, which is more than enough for an area to be designated as FAR if it can qualify by specific definition level criteria (e.g., to qualify for Level 3, the town would need to have fewer than 10,000 population). For example, Kauai's largest city is Kapa with a 2010 population of 10,699. The entire island clearly qualifies as frontier per FAR Level 1 and Level 2 definitions. Large portions of the island (but not all of it) also qualify per the FAR Level 3 (i.e., a portion of Kauai's population reside greater than 30 minutes travel from a city of over 10,000) and Level 4 definitions. Bethel, Alaska, which is not connected to other cities and towns via road with a 2010 population of 17,013, also qualifies as frontier per the FAR Level 1 and Level 2 definitions but not by the FAR Level 3 and Level 4 definitions (i.e., the city has greater than 10,000 population), though surrounding areas would qualify because of the severe travel barriers (i.e., no roads into town).

Given that different geographical units (e.g., residential ZIP code areas, census tracts etc.) would aggregate areas differently, a small Gulf island 100 yards off Florida with no connecting bridge might qualify differently using different geographic units. As indicated above, the FAR designations for ZIP code areas were based on a criterion of 50 percent or greater being designated. Data will be made available so that users can modify this criterion for their own specific purposes (for any or all of the level definitions). For example, if federal or state policymakers need to target a program to ZIP code areas where the large preponderance of population was living in frontier/remote locals, a FAR criterion of 80 percent could be applied. The results for the trial application of the FAR Methodology for ZIP codes with 2000 Census data and Urban Area definitions for the lower 48 states and supporting material are available on the web. The available tables are by state, the four definition Levels, and in aggregate for both population and land area. The following FAR development project data and materials are available to users at the two cited web locations:

Web location #1 (Economic Research Service):

<http://www.ers.usda.gov/data-products/frontier-and-remote-area-codes.aspx>

- 1) general description of the FAR taxonomy; and
- 2) downloadable files by state and for the whole nation for residential ZIP code areas, and census tracts will be available (the files will include: identification code; population count; Level 1, 2, 3, and 4 designation status, frontier or not based on majority of population); percentage of population that meet and do not meet frontier criteria for each of the levels; land area designated as frontier/remote by each of the Levels, land area not

designated as frontier/remote by each of the Levels, and state where the majority of the population resides; and

3) maps.

Web location #2 (Center for Rural Health, University of North Dakota):

<http://ruralhealth.und.edu/frontier/>

- 1) current version of the rural, frontier, and island definition literature review (this review will continue to be updated as new material is obtained and as new definitions are created);
- 2) detailed description of the developmental project (e.g., summary of regional stakeholder meetings and composition of advisory groups);
- 3) description of the purposes and principles upon which the taxonomy was developed;
- 4) detailed description of the analytical methods; and
- 5) sensitivity analyses, comparisons with other designation methods, maps and the like.

The aggregate results are summarized below in Table 1.

Table 1: Aggregate FAR US 2000 Census Results for 48 Conterminous States by Definition

Level Categories

Level	Population	% of Population	% Land Area
Level 1	17,960,713	6.5	54.8
Level 2	12,391,300	4.5	48.8
Level 3	8,032,822	2.9	43.0
Level 4	4,782,328	1.7	35.2

The state-level results are available at the FAR section of the ERS website (see: <http://www.ers.usda.gov/data-products/frontier-and-remote-area-codes.aspx>). For instance, for the Level 1 FAR sub definition, the states in order from highest to lower for percentages (top 10) of frontier population are: Wyoming (61.2%), Montana (57.7%), North Dakota (48.6%), South Dakota (45.4%), Mississippi (39.6%), Nebraska (35.9%), New Mexico (32.4%), Kansas (25.4%), Vermont (24.9%), and Iowa (23.5%). The similar top 10 for percentage of land area are: Nevada (90.1%), Montana (87.5%), Nebraska (87.2%), South Dakota (86.8%), Wyoming (86.7%), North Dakota (86.5%), New Mexico (82.2%), Utah (81.8%), Kansas (76.9%), and Colorado (74.1%). The similar top 10 by total frontier population are: Texas, Mississippi, Missouri, Minnesota, Kentucky, Michigan, Iowa, Kansas, Nebraska, and Illinois. The lists for the other Levels vary. For example, the top five regarding percentage of the population designated as frontier per the Level 4 sub definition are: North Dakota (26.2%), South Dakota (24.5%), Montana (15.5%), Wyoming (12.9%), and Nebraska (10.3%). Note that Alaska and Hawaii are not included here but will be included in the 2010 version of the FAR codes and will undoubtedly appear on the lists.

HRSA is now seeking public comments on:

- 1) the use of a population threshold of 50,000 as the central place from which to measure in defining FAR areas;
- 2) the use of 60 minutes travel time from the central place;
- 3) whether the 50 percent population threshold for assigning frontier status to a ZIP code/census tract is the appropriate level for the four standard provided levels;

- 4) other ways of representing urban and rural areas;
- 5) alternatives to using grid cells for measuring remoteness;
- 6) applicability of the FAR methodology to island populations; and
- 7) need for a Census tract and county version of the FAR.

Comments on other aspects of the methodology are welcomed. Commenters are reminded that this is only a proposed methodology, and it is not currently tied to any current federal program or allocation of resources. It is only a tool to better delineate those isolated and remote areas in the country to help researchers and policy makers better understand the unique circumstances of this geographic subset.

Dated: October 26, 2012

Mary K. Wakefield,
Administrator

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[FR Doc. 2012-26938 Filed 11/02/2012 at 8:45 am; Publication Date: 11/05/2012]